

From glowbugs@theporch.com Tue Oct 22 11:18:15 1996
Return-Path: <glowbugs@theporch.com>
Received: from uro (localhost.theporch.com [127.0.0.1]) by uro.theporch.com
(8.8.2/AUX-3.1.1) with SMTP id LAA19351; Tue, 22 Oct 1996 11:10:48 -0500 (CDT)
Date: Tue, 22 Oct 1996 11:10:48 -0500 (CDT)
Message-Id: <199610221610.LAA19351@uro.theporch.com>
Errors-To: conard@tntech.campus.mci.net
Reply-To: glowbugs@theporch.com
Originator: glowbugs@theporch.com
Sender: glowbugs@theporch.com
Precedence: bulk
From: glowbugs@theporch.com
To: Multiple recipients of list <glowbugs@theporch.com>
Subject: GLOWBUGS digest 328
X-Listprocessor-Version: 6.0c -- ListProcessor by Anastasios Kotsikonas
X-Comment: Please send list server requests to listproc@theporch.com
Status: 0

GLOWBUGS Digest 328

Topics covered in this issue include:

- 1) Re: Help with Heathkit RF Signal Generator
by "'AB7HI' Stephen Lee" <slee@u.washington.edu>
- 2) Alexanderson Alternator (fwd)
by Jeffrey Herman <jherman@hawaii.edu>
- 3) Anyone hear the Alexanderson Alternator ?
by Greg Weinfurtner <weinfurtner@ouvaxa.cats.ohiou.edu>
- 4) SAQ Alexanderson Alternator Test
by rdkeys@csemail.cropsci.ncsu.edu
- 5) Re: Anyone hear the Alexanderson Alternator ?
by rdkeys@csemail.cropsci.ncsu.edu
- 6) Re: Anyone hear the Alexanderson Alternator ?
by Bob Roehrig <broehrig@admin.aurora.edu>
- 7) Re: Can I buy FT-243 blanks?
by Jeffrey Herman <jherman@hawaii.edu>
- 8) Battery help
by Bob Roehrig <broehrig@admin.aurora.edu>
- 9)
by Tony Gallagher <kiss@iol.ie>
- 10) Re: Can I buy FT-243 blanks?
by "Robert M. Bratcher Jr." <bratcher@worldnet.att.net>
- 11) Re: Reply to address
by "Robert M. Bratcher Jr." <bratcher@worldnet.att.net>
- 12) Re: Anyone hear the Alexanderson Alternator ?
by "Robert M. Bratcher Jr." <bratcher@worldnet.att.net>
- 13) Re: Alexanderson Alternator (fwd)
by "Robert M. Bratcher Jr." <bratcher@worldnet.att.net>

- 14) FW: Advice wanted
by gpewitt@execpc.com
- 15) Small-Value Coils (fwd)
by Jeffrey Herman <jherman@hawaii.edu>
- 16) Power transformers vs. AF transformers
by Art Winterbauer <art@comet.ucar.edu>
- 17) 100 crystals for \$22.50
by jefffd@coriolis.com (Jeff Duntemann)

Date: Mon, 21 Oct 1996 09:28:41 -0700 (PDT)
From: "'AB7HI' Stephen Lee" <slee@u.washington.edu>
To: Robert Paschal <r-paschal@worldnet.att.net>
Subject: Re: Help with Heathkit RF Signal Generator
Message-ID: <Pine.A32.3.95.961021091843.13257A-100000@homer27.u.washington.edu>

Hello Robert,
I've got this manual. Will run off a copy of it today for
you. Since we both are Tacoma residents, getting it to
you will be easy. Maybe we can get together for a QSO during
or after the FOX hunt tonight? Until then 73 and cul.

Stephen Lee, AB7HI

On Sun, 20 Oct 1996, Robert Paschal wrote:
> Can anyone help me find a schematic and/or manual for a Heathkit SG-8
> RF Signal Generator.
<snip>
> Thanks,
> Bob, AA0MC Tacoma, WA
>

Date: Mon, 21 Oct 1996 07:51:50 -1000
From: Jeffrey Herman <jherman@hawaii.edu>
To: TopBand <topband@contesting.com>, Glowbugs List <glowbugs@theporch.com>,
Subject: Alexanderson Alternator (fwd)
Message-ID: <Pine.GS0.3.93.961021075101.7302B-100000@uhunix3>

----- Forwarded message -----
Date: Mon, 21 Oct 1996 03:16:39 -1000
From: bkh@bwab.se

To: Multiple recipients of list <boatanchors@theporch.com>
Subject: Alexanderson Alternator

Last minute update on the testtransmission from
Grimeton using the Alexanderson Alternator.

The transmission will take place October 23, 1996
at approx. 0855-0930 UT. CW-speed approx. 12 wpm.

Frequency is 17.2 kHz and the callsign is SAQ.

The message in English will be sent twice and
thereafter are some local hams invited to use the
handkey for private messages.

Listeners reports by letter, fax or e-mail is welcomed
and will be verified with a QSL-card.

BTW the e-mail address to Grimeton was not usable
due to a misspelling in the registrated address. It is
now corrected and to my knowledge now working OK.

The address is grimeton@mobitel.telia.se.

The snail mail address and the fax nr is available
on the Web <http://www.telemuseum.se/Grimeton/>

Happy listening

73 de SM/BKH Bengt Wilander bkh@bwab.se

Date: Mon, 21 Oct 1996 14:41:11 -0300
From: Greg Weinfurtner <weinfurtner@ouvaxa.cats.ohiou.edu>
To: glowbugs@theporch.com
Subject: Anyone hear the Alexanderson Alternator ?
Message-ID: <v03007800ae9165623abc@[132.235.72.11]>

Gang,

Did anyone hear the test transmission that the SAQ station was
putting on today (1100utc 10/21/96) at 7am local time?

I was listening from 7 to 715 am local but didn't hear a thing.
I'm in southeast Ohio.

73 de

```
*****
*                               Greg Weinfurtner AEE BSS *
* NN      N  SSSSSSS 8888888 0000000 Electronic Design Splst *
* N N     N  S      8      8 0      0 Ohio University  Athens *
* N N     N  SSSSSSS 8888888 0      0 GO BOBCATS!             *
* N      N N      S 8      8 0      0                       *
* N      NN  SSSSSSS 8888888 0000000                       *
*                               *
*                               Can thou send forth lightnings *
* Amateur Radio                that they may go and say unto *
* DXCC WAS EM89 QRP-L #297     thee, 'Here we are'? Job 38:35 *
* weinfurtner@ouvaxa.cats.ohiou.edu                               *
* http://ouvaxa.cats.ohiou.edu/~weinfurtner                     *
*****
```

Date: Mon, 21 Oct 1996 15:38:28 -0400 (EDT)
From: rdkeys@csemail.cropsci.ncsu.edu
To: glowbugs@theporch.com
Cc: rdkeys@csemail.cropsci.ncsu.edu ()
Subject: SAQ Alexanderson Alternator Test
Message-ID: <9610211938.AA100298@csemail.cropsci.ncsu.edu>

Anyone get anything together for listening in on the SAQ Alexanderson Alternator Test? I got my RAK up and am hearing a few digital ditties down there. Can anyone send me the VLF stations list that was posted here a few days back? My mailbox machine groked bigtime and lost everything I had been holding for the past few weeks. Oh well.....

73/ZUT DE NA4G/Bob UP

Date: Mon, 21 Oct 1996 15:43:19 -0400 (EDT)
From: rdkeys@csemail.cropsci.ncsu.edu
To: weinfurtner@ouvaxa.cats.ohiou.edu
Cc: glowbugs@theporch.com
Subject: Re: Anyone hear the Alexanderson Alternator ?
Message-ID: <9610211943.AA100322@csemail.cropsci.ncsu.edu>

>
> Gang,
> Did anyone hear the test transmission that the SAQ station was
> putting on today (1100utc 10/21/96) at 7am local time?
>
> I was listening from 7 to 715 am local but didn't hear a thing.
> I'm in southeast Ohio.

I spent the night wiring up power (battery power to be quiet for ac hum) to my RAK, and had the recorders going in the background. I shut down at 1130Z when I finally went belly-up. I heard nothing from SAQ, but did hear a strong digital signal on about 22khz or so, and several weaker ones down in the 18khz area. Unfortunately the RAK has only a 0-1000 dial scale, so one guesses where one is, mostly.

73/ZUT DE NA4G/Bob UP

Date: Mon, 21 Oct 1996 15:00:54 -0500 (CDT)
From: Bob Roehrig <broehrig@admin.aurora.edu>
To: Greg Weinfurtner <weinfurtner@ouvaxa.cats.ohiou.edu>
Cc: Multiple recipients of list <glowbugs@theporch.com>
Subject: Re: Anyone hear the Alexanderson Alternator ?
Message-ID: <Pine.ULT.3.95.961021145928.12762B-1000000@admin.aurora.edu>

On Mon, 21 Oct 1996, Greg Weinfurtner wrote:

> Did anyone hear the test transmission that the SAQ station was
> putting on today (1100utc 10/21/96) at 7am local time?
> I was listening from 7 to 715 am local but didn't hear a thing.
> I'm in southeast Ohio.

Nope - nothing heard here in IL. I doubt I'll get up early Wed and try.

E-mail broehrig@admin.aurora.edu 73 de Bob, K9EUI
CIS: Data / Telecom Aurora University, Aurora, IL

Date: Mon, 21 Oct 1996 07:48:37 -1000
From: Jeffrey Herman <jherman@hawaii.edu>
To: Brian Carling <bry@mnsinc.com>
Subject: Re: Can I buy FT-243 blanks?
Message-ID: <Pine.GS0.3.93.961021074753.7302A-1000000@uhunix3>

No, I believe it was a surplus place, such as Fair Radio. But I'm certain it wasn't JAN. Jeff KH2PZ

On Mon, 21 Oct 1996, Brian Carling wrote:

```
> HEY! It's a reply from AF4K!
>
> Mike, I think someone said that JAN Crystals in Fort Myers hd a bunch
> of old 6.9-7.0 MHz range crystals to sell cheap, but I couldn't swear
> to it.
>
> You can get their address in my file crystals.txt available at:
> my Web Site at the address:
>
> http://www.mnsinc.com/bry/
>
> All the very best - Brian, AF4K / G3XLQ
> = = = = =
>
> On 21 Oct 96, michael silva wrote:
>
> > I thought I recently saw somebody mention buying FT-243 crystal
> > blanks cut for just below 40 meters and grinding them up to their
> > frequencies of choice, but when I looked again I couldn't find the
> > message. Does anybody know if any manufacturers will sell such
> > blanks? I've got lots of "useless" FT-243s (and no useful ones :(
> > ), and that sounds like an interesting way to get a decent
> > assortment. Thoughts? Group buy? Fantasy?
> >
> > 73,
> > Mike, KK6GM
> >
> >
> 73 from Radio AF4K / G3XLQ in Gaithersburg, MD USA
> bry@mnsinc.com
> *** See the great ham radio resources at:
> http://www.mnsinc.com/bry/
>
```

Date: Mon, 21 Oct 1996 15:28:46 -0500 (CDT)
From: Bob Roehrig <broehrig@admin.aurora.edu>
To: Boatanchors <boatanchors@theporch.com>, glowbugs <glowbugs@theporch.com>
Subject: Battery help
Message-ID: <Pine.ULT.3.95.961021152651.3423A-100000@admin.aurora.edu>

Can someone tell me what an Eveready #734 battery is?
I found an old G.R. capacitance bridge that uses one
but don't know the voltage.
Thanks

E-mail broehrig@admin.aurora.edu 73 de Bob, K9EUI
CIS: Data / Telecom Aurora University, Aurora, IL

Date: Mon, 21 Oct 1996 22:21:01 +0100 (BST)
From: Tony Gallagher <kiss@iol.ie>
To: glowbugs@theporch.com
Message-ID: <1.5.4.16.19960622033912.13e700a2@iol.ie>

Greetings!
I work in a Local radio station in Ireland and I'm trying to construct a
2-4 watt Wide-FM transmitter in the 440-450Mhz area.

Does anybody know of any company where I could buy a ATV transmitter that
I could convert with no major difficulty?

Any help whatso-ever would be appricated!

Tony G.
CHECK OUT OUR NEW LIMERICK 95 HOMEPAGE!!!!

'''
(o o)
-----o00--()--00o-----
*CHECK OUT OUR WWW SITE!!*FIND US AT: www.iol.ie/limerick95/ *****
*RADIO LIMERICK 95Mhz FM **BROADCASTING TO LIMERICK, IRELAND AND TO EUROPE *
*100 O'CONNELL STREET *****VIA THE ASTRA SATELITE ON THE VH1 TRANSPONDER 22*
*LIMERICK *****AUDIO SUBCARRIER 7.92Mhz *****
* IRELAND *****|* www.iol.ie/limerick95/***| TONY- kiss@iol.ie *

***** VISIT OUR RADIO STATIONS PAGE AND ENTER GREAT WEEKLY COMPETITIONS!! **

Date: Mon, 21 Oct 1996 19:39:08 -0500
From: "Robert M. Bratcher Jr." <bratcher@worldnet.att.net>
To: jeffd@coriolis.com
Cc: glowbugs@theporch.com
Subject: Re: Can I buy FT-243 blanks?
Message-ID: <1.5.4.32.19961022003908.00682d70@postoffice.worldnet.att.net>

At 03:35 PM 10/21/96 +0000, you wrote:

>I've had only indifferent luck grinding FT243s, but there's a place called
>C&H Sales in CA that sells a "grab bag" of crystals (I forget how many) for
>\$15. You're right, it's a cheap way to get FT-243 rocks and housings, at
>very least. Most of them are FT-243; in fact, many are oversize military
>crystals. None in the bag I bought were on the ham bands, but they were
>cheap and you could open them up.

>

>I'll try and find their catalog tonight and get the details on this deal.
>Thge cost per crystals was about 50 cents, so if you wreck a few it's no big
>deal. And "educational"...

>

>--73--

>

>--Jeff Duntemann KG7JF

> Scottsdale, Arizona

>

Please post all information on this company. I'd like to play with some
FT-243's myself!

Robert M. Bratcher Jr.

E-mail to:

bratcher@worldnet.att.net

Record collector, 8mm, super 8, 16 and 35mm Film collector.

I like old radio's too.

Collins, Hallicrafters, National & Hammurland are my Favorites!

Date: Mon, 21 Oct 1996 19:39:15 -0500
From: "Robert M. Bratcher Jr." <bratcher@worldnet.att.net>
To: mjsilva@ix.netcom.com (michael silva)
Cc: glowbugs@theporch.com
Subject: Re: Reply to address
Message-ID: <1.5.4.32.19961022003915.00686198@postoffice.worldnet.att.net>

At 05:29 AM 10/21/96 +0000, you wrote:

>Robert,

>

>The two other mailing lists I'm on both reply to the sender, not to the
>list -- I figured that was the way they all worked. So what are you
>working on, GB-speaking?
>
>73,
>Mike, KK6GM
>

This is the first one of 5 I'm on that reply to the sender instead of the
list. Not a problem really. If I want the whole list to see my reply then I
just CC: the glowbugs address.

I'm no building anything right now. When I do it's transmitters which I
"play with" awhile then take apart for reuse at a later time. I did keep a
813 linier amp I built with 4 of those tubes in paralell. Last tube Xmitters
I built were QRP rigs using battery tubes. Stuff like 1U4's 3A5's ect. Ran
the whole thing off battery supply.
Last reciever I built was a 5 tube TRF from a Radiocraft article. Only
modification was using 4 variable caps instead of a 4 gang I didn't have.
Built it so I could listen to KNUZ in better fidelity then what my modern
superhet radio was giving me. Couldn't find the Miller coils so I wrote J. W
Miller company. Got a packet back from Bell Industries sent by an engineer
who loves to build old radio's! The photocopies he sent enabled me to build
my own coils for the set. Now that was really nice! Didnt take that apart
even though KNUZ quit playing oldies & switched to all news about 2 years
ago. Gave the set to someone who wanted to put my homemade TRF in a wood
case he made. Still plays for this fellow after he built an amplifier for it
since my TRF was only a tuner.

Robert M. Bratcher Jr.
E-mail to:
bratcher@worldnet.att.net
Record collector, 8mm, super 8, 16 and 35mm Film collector.
I like old radio's too.
Collins, Hallicrafters, National & Hammurland are my Favorites!

Date: Mon, 21 Oct 1996 19:39:21 -0500
From: "Robert M. Bratcher Jr." <bratcher@worldnet.att.net>
To: glowbugs@theporch.com
Subject: Re: Anyone hear the Alexanderson Alternator ?
Message-ID: <1.5.4.32.19961022003921.006899cc@postoffice.worldnet.att.net>

At 07:17 PM 10/21/96 +0000, you wrote:
>>
>> Gang,

>> Did anyone hear the test transmission that the SAQ station was
>> putting on today (1100utc 10/21/96) at 7am local time?
>>
>> I was listening from 7 to 715 am local but didn't hear a thing.
>> I'm in southeast Ohio.
>
>I spent the night wiring up power (battery power to be quiet for ac hum)
>to my RAK, and had the recorders going in the background. I shut down
>at 1130Z when I finally went belly-up. I heard nothing from SAQ, but did
>hear a strong digital signal on about 22khz or so, and several weaker ones
>down in the 18khz area. Unfortunately the RAK has only a 0-1000 dial
>scale, so one guesses where one is, mostly.
>
>73/ZUT DE NA4G/Bob UP
>
>

I'm live about 60 miles northwest of Houston Texas (out in the country) and
didn't hear the station at all. Guess LW band conditions are bad at dawn or
the station didn't transmit. Maybe not enough power?

Robert M. Bratcher Jr.
E-mail to:
bratcher@worldnet.att.net
Record collector, 8mm, super 8, 16 and 35mm Film collector.
I like old radio's too.
Collins, Hallicrafters, National & Hammurland are my Favorites!

Date: Mon, 21 Oct 1996 19:39:34 -0500
From: "Robert M. Bratcher Jr." <bratcher@worldnet.att.net>
To: jherman@hawaii.edu
Cc: glowbugs@theporch.com
Subject: Re: Alexanderson Alternator (fwd)
Message-ID: <1.5.4.32.19961022003934.00666a80@postoffice.worldnet.att.net>

At 05:56 PM 10/21/96 +0000, you wrote:

>
>
>----- Forwarded message -----
>Date: Mon, 21 Oct 1996 03:16:39 -1000
>From: bkh@bwab.se
>To: Multiple recipients of list <boatanchors@theporch.com>
>Subject: Alexanderson Alternator
>
>Last minute update on the testtransmission from

>Grimeton using the Alexanderson Alternator.
>
>The transmission will take place October 23, 1996
>at approx. 0855-0930 UT. CW-speed approx. 12 wpm.
>
>Frequency is 17.2 kHz and the callsign is SAQ.
>
>The message in English will be sent twice and
>thereafter are some local hams invited to use the
>handkey for private messages.
>

(Rest deleted for space)

Thanks Jeff, Seems myself plus a few others listened on the wrong morning!
No wonder we didn't hear anything. I'll try again on the 23rd.

Robert M. Bratcher Jr.

E-mail to:

bratcher@worldnet.att.net

Record collector, 8mm, super 8, 16 and 35mm Film collector.

I like old radio's too.

Collins, Hallicrafters, National & Hammurland are my Favorites!

Date: Mon, 21 Oct 96 20:03:43 PDT

From: gpewitt@execpc.com

To: glowbugs@theporch.com

Subject: FW: Advice wanted

Message-ID: <Chameleon.961021200720.gpewitt@execpc.com.execpc.com>

On Sat, 19 Oct 96 19:23:42 PDT gpewitt@execpc.com wrote:

>A friend gave me what appears to be a power supply for some
>kind of machine. It's in a nice 14 1/2" by 8 1/4" by 8"
>cabinet with an 11 by 7 by 2" chassis inside. It has a lid on

>top and a nice Simpson 0 to 1 ma dc meter on the front.

Inside

>are 3 electrolytics a 10 mf at 500v, a 30 mf at 500 v, and a
>40-40 at 475 v. It has a Triad transformer marked 600 v ct 50

>ma, 6.1 v at 2 amps, and 5 v at 7 amps. There are 7 octal
>sockets and 6 tubes. 5Y3GT, 2 VR105's, a 2050, and 2 6SJ7's.

>There is also a Potter Brumfield relay in one of the sockets.

>It looked pretty ratty but has cleaned up very nicely.
>Question is, do I have something I can make into a low power
>transmitter or should I strip it and use the chassis and
>cabinet for some kind of simple receiver project?
>Is the transformer big enough to be useful? Anyone got a
>schematic or better yet a construction article (copy) that
>would make good use of the components? I'm kinda frugal
>and hate to waste anything. So how about it all you thrifty
>boatanchor guru types? Enlighten me. Thanks and 73 Gary

I don't need another regulated power supply, I want to make a
not-so-simple low power cw transmitter out of this unit.
I think the power transformer should give me about 15 watts
or so. Maybe use plug in coils in one of the octal sockets?

>-----
>Name: Gary Pewitt N9ZSV
> 6120 W. Calumet Rd. Apt 204
> Milwaukee, WI 53223
> 414 355 8147 Home 414 297 4307 Work
>E-mail: gpewitt@execpc.com
>Date: 10/19/96
>Time: 19:23:42
>
>This message was sent by Chameleon
>-----
>

Name: Gary Pewitt N9ZSV
6120 W. Calumet Rd. Apt 204
Milwaukee, WI 53223
414 355 8147 Home 414 297 4307 Work
E-mail: gpewitt@execpc.com
Date: 10/21/96
Time: 20:03:44

This message was sent by Chameleon

Date: Mon, 21 Oct 1996 16:58:38 -1000
From: Jeffrey Herman <jherman@hawaii.edu>

To: Glowbugs List <glowbugs@theporch.com>
Subject: Small-Value Coils (fwd)
Message-ID: <Pine.GS0.3.93.961021165700.11596B-100000@uhunix3>

This might be of interest - using various size screws as an aid to winding inductors.
Jeff KH2PZ / KH6

----- Forwarded message -----
Date: Sun, 6 Oct 1996 07:10:49 -1000
From: d.nordquest@juno.com
To: Low Power Amateur Radio Discussion <qrp-1@Lehigh.EDU>
Subject: Small-Value Coils

Excuse my inadvertent postings of server commands! Perhaps the following from an old QST will be of interest to those who missed it. It should be useful especially at VHF and up.

MACHINE-SCREW-WOUND COILS

Screw Size		Inductance in uH for n Turns					
		n =	1	2	3	4	
5	6						

	6-32	.016	.024	.032	.044	.058	.062

	10-24	.017	.028	.043	.057	.072	.088

	1/4-20	.021	.035	.055	.077	.095	.121

	5/16-18	.022	.044	.067	.096	.121	.158

	3/8-16	.026	.052	.083	.118	.152	.201

	7/16-14	.03	.061	.098	.143	.199	.24

(Measured by W7PDM using #20 bell wire for all but the 6-32's,
for

which #26 wire-wrap was used. Source: QST - 11/93/p.83.)
[Note that tinned wire, such as wire-wrap, lowers the coil Q.]

It might, for example, be of use in building phasing networks for the
R2/T2 at VHF and up.

Dave KE9ED

Date: Tue, 22 Oct 1996 09:47:57 -0600 (MDT)
From: Art Winterbauer <art@comet.ucar.edu>
To: glowbugs <glowbugs@theporch.com>
Subject: Power transformers vs. AF transformers
Message-ID: <Pine.SUN.3.95.961022094624.29704A-100000@spike>

Would somebody list the similarities and differences between the two? Any
discussion would be helpful. I'd also appreciate pointers to books or articles.

Art
WA50ES

Date: Tue, 22 Oct 1996 09:01:38 -0700
From: jeffd@coriolis.com (Jeff Duntemann)
To: glowbugs@theporch.com
Subject: 100 crystals for \$22.50
Message-ID: <1.5.4.32.19961022085745.00ef90f4@ntserver.coriolis.com>

Hi gang--

I dug out my C&H Sales catalog last night and looked up their crystals
offer. I'll quote them precisely here:

100 PIECE CRYSTAL ASSORTMENT

New military crystal assortment from subminiature to large. Metal and
phenolic cases. Please do not ask for any certain frequency. We have over
30,000 in stock, so we are offering these at a ridiculously low price.

I bought this assortment about two-three years ago. It consisted of about
one third sealed HC-6 and HC-18 type packages, and two thirds "big" crystals
including traditional FT243 "3-screw" cases and military crystals in other
series with FT243 pins. "CR1A" is on a lot of the phenolic cases if that

means anything to the mil experts here. These open from the top with two screws.

The frequencies are all over the map, but it was notable that except for the color burst crystals (of which there were 8 or 10) not a single one was on any ham band. The bulk of them were from 3 to 9 Mhz. A few were marked in the VHF region (142 Mhz for example) but it's unclear whether that's an overtone or a multiple. Several were close enough to consider grinding "up" to the CW portion of 80 or 40 meters. There was one 100Kc marker crystal, which to me made the package worth the price. It also gave me a chance to see how close color burst crystals are to one another. (Not as close as I had thought...)

Is it worth it? Depends on how much discretionary cash you have. 23 cents a pop is dirt cheap--but it's a little like buying a five gallon jug of barbecue sauce. If you just want to play around with crystal grinding it's a great thing to do, especially if you can share the goodies with a couple of other local guys.

The catalog itself is fascinating. It's mostly what I call "industrial" surplus: fans, relays, motors, solenoids, gears, belts, hydraulic fittings, and so on. Good assortment of low-voltage stepdown transformers. For example, they list a 6.3 VAC 250ma filament trans for \$1. Get two and you have a receiver power supply. Only a couple of high voltage transformers but not the most pertinent; 700V 2 amps, for example, for \$80, weighing 95 pounds. There is one 1000VCT 500mA trans for \$100 which could be useful. There's a 10 for \$15 meter assortment, but they're "custom" scales like pulls from pH meters. Other oddments, prisms, mirrors, circuit breakers, heating elements, but very little in the line of glowbug supplies.

Well worth having, tho. I bought a copier lens from them and made a telescope for my nephew. Definitely have it on file.

C&H Sales
2176 East Colorado Boulevard
Pasadena CA 91107
800-325-9465
213-681-4925

--73--

--Jeff Duntemann KG7JF
Scottsdale, Arizona

End of GLOWBUGS Digest 328
